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CENTRAL INTELLIGENCE AGENCY

REPORT

INFORMATION REPORT

COUNTRY : GERMANY/USSR

SUBJECT : Additional Data on
Lissakhimstrof Plant (Severo-Donetsk)

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1.

2.

3.

Quantitative production of chemicals at this plant at
time of observation. Estimated 1952 production of these
chemicals.

only the ammonia oxidation
plant was in operation and its production was probably

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quite negligible. The ammonia was shipped in from outside the plant. The production of ammonia had not begun because the power plant was not yet in operation. According to plan, the power plant was to start operations in fall 1951. No indication of the planned production for the year 1952.

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4. Source of hydrogen and nitrogen for ammonia synthesis.

Both hydrogen and nitrogen were produced at the plant itself. Nitrogen was obtained from liquid air and producer gas synthesis, and hydrogen was obtained from water gas synthesis.

5. Information on plant equipment; number, size and capacity of compressors, ammonia and nitric acid converters, absorbers, etc.

The equipment used at Lisskhimstroï was equipment which had been dismantled from Leuna. The type of steam boilers which were to be installed at Lisskhimstroï had a capacity of 50 tons of steam per hour.

The compressors were standard Leuna compressors with a capacity of 1900 cbm per hour for 100 thrusts per minute.

Two large absorbers were visible from outside of the plant, but I do not know what their capacity was.

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6. Information on processes, pressures, catalysts, etc. A process flow diagram would be helpful.

Processes, pressures and catalysts, similar to those used at Leuna, were probably planned for Lisskhimstroï. The presence of Leuna scientists, Leuna equipment and Leuna literature suggests that Leuna methods were to be followed.

7. Was any of the ammonium nitrate production being used for explosives? Any information on destination of shipments of ammonia, strong nitric acid, or ammonium nitrate from this plant.

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The close proximity of an explosives factory at Yushnaya Grupa (Plant No 20) /Yushnaya Grupa is about 8 km from the Lisskhimstroï plant/ where, Hexogen was to be produced, led to the following conjectures regarding ammonium nitrate production: As the production of ammonia was definitely planned at Lisskhimstroï, and since the plant for the production of highly concentrated nitric acid dismantled from Leuna was probably taken there, and since the production of formaldehyde was among the assignments given to the German scientists at Lisskhimstroï, it was assumed that the plant at Lisskhimstroï was shipping some of its raw materials, possibly ammonium nitrate, to nearby Yushnaya Grupa, where explosives were made.

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8. [] Was there actual or planned production of methanol at this plant? If so, what was the quantity actually produced or planned? []

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The Soviets disseminated questionnaires requesting that [] information regarding chemical processes used at Leuna, including the manufacture of methanol. From this, [] the production of methanol was contemplated at Lisskhimstroi. []

9. Any information concerning the source of electric power and raw materials or intermediates for chemical production, and the number of employees will be very helpful.

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Electric power was supplied from the Don Soda plant at Pereyesdnaya [] When the plant begins full scale production, [] the power will be supplied by the Lisskhimstroi's own power plant. The only raw material shipped into the plant [] was ammonia which [] had come from the coke plant at Golovka. Between 8-10 thousand people were employed at the plant; most of these people, however, were engaged in the actual construction of the plant, and not in its operation.

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10. An oriented sketch showing the layout of chemical production buildings of this plant would be extremely valuable.

11. [] research work on production of adipic acid. Was this research in connection with production or planned production of this chemical at Lisskhimstroi? Was this research in connection with actual or planned production of polyamides at Lisskhimstroi []

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[] the production of adipic acid was intended at Lisskhimstroi. Rather, [] the Leuna plant for the production of adipic acid had been shipped to Dzerzhinsk where Drs Striegler and Meier were working on plastics and had a pilot plant for the production of caprolactam. (Caprolactam is used in the production of the polyamide, Perlon.)

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12. Is a urea plant installed at Lisskhimstroi [] Is commercial production of urea planned [] Is production of Oppanol planned for Lisskhimstroi []

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Although no urea pilot plant was operating at Lisskhimstroi during [] German scientists were requested to design a urea pilot plant. []

[] the commercial production of urea is planned at Lisskhimstroi. All literature which was removed from Heydebrek on the production of urea, was kept at Lisskhimstroi. [] the production of Oppanol is planned at Lisskhimstroi because again it seems more logical that this plastic material be produced at Dzerzhinsk.

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